

WJ

THE STATE OF WYOMING



JIM GERINGER
GOVERNOR

Department of Environmental Quality

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August 6, 2001

Dolly Potter, Environmental Engineer
Solvay Minerals
P.O. Box 1167
Green River, WY 82935

**RE: Solvay Minerals Green River Soda Ash Plant
Stack Test Review**

Dear Ms. Potter:

The Division has received and reviewed the stack test reports submitted by Solvay Minerals under cover letter dated July 25, 2001. Airtech Environmental Services Inc. was contracted by Solvay to conduct particulate, NOx, and CO emission tests on the ESP controlled "D" Train Dryer (AQD #82). Initial compliance testing is required by Chapter 6, Section 2 Permit CT-1347. Sampling was conducted on June 11-12, 2001. Unit AQD #82 has no associated CO permit limitations. CO emissions were measured for company internal use. EPA Reference Methods 1-5/202 were utilized to determine front half, back half organic, and back half inorganic particulate emissions; EPA Reference Method 7E was utilized to determine NOx emissions; and EPA Reference Method 10 was utilized to determine CO emissions. The front half and the back half inorganic portions of the test were totaled to determine compliance with the source's particulate emission limit.

This review of the test data indicates the "D" Train Dryer (AQD #82) to be operating in compliance with the particulate and NOx emission limits set by Operating Permit 30-126. Operating Permit 30-126 limits particulate emissions from the dryer to 3.45 lb/hr and limits NOx emissions to 30.00 lb/hr. Review of the test data shows the dryer tested at an average for three one hour test runs at 0.883 lb/hr particulate, 25.6% of it's allowable and 22.8 lb/hr NOx, 76% of it's allowable. The testing was performed at an average load of 151.7 TPH, 94% of capacity (161 TPH).

The Division will accept these tests as representative of particulate and NOx emissions at the time of testing from this source. Summaries of the analyses including the CO testing are attached.

SOLVAY2016_1.4_000123

8/6/01

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
STACK TEST SUMMARY REPORT
SOLVAY MINERALS GREEN RIVER SODA ASH PLANT
(82) D TRAIN DRYER

REVIEWER: Diesel TEST FIRM: Airtech Environmental Services Inc.	REVIEW DATE: 8/6/01 TEST TYPE: Initial (Compliance)	OBSERVED: TEST TYPE: Initial (Compliance)																																																																																																						
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<p>The "D" Train Dryer (unit 82) is limited by Operating Permit 30-126 to 3.45 lb/hr particulate. The Front Half and Back Half Inorganic portion of the Method 1-5/202 particulate emissions test showed and average for the three one hour test runs particulate emissions totaling 0.883 lb/hr. The Back Half Organic portion of the testing showed an average for the three one hour test runs particulate emissions totaling 0.229 lb/hr. The filter weight changes were properly transcribed from the laboratory data sheets to the spreadsheet form.</p>																																																																																																								

8/6/01

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
 AIR QUALITY DIVISION
 STACK TEST SUMMARY REPORT
 SOLVAY MINERALS GREEN RIVER SODA ASH PLANT
 (82) D TRAIN DRYER

REVIEWER: Diesel	REVIEW DATE: 8/6/01	OBSERVED:	
TEST FIRM: Airtech Environmental Services Inc.		TEST TYPE: Initial (Compliance)	

TEST DATE	POLLUTANT TESTED	PERCENT OF ALLOWABLE	PERCENT OF FULL LOAD	
6/12/01	NOX			
STACK TEMP 293				
ACFM 153,500		76	94	
SCFM @ 0% O2: 33,323	LB/HR 22.8		RATE 59.6 ppmdv	
	SCFM 84,933		%O2: 12.7	

LB/HR	RATE	LB/MMBTU	SCFM	% LOAD
RUN1: 24.1	61.4 ppmdv		87100	98
RUN2: 23	61.4 ppmdv		82500	91
RUN3: 21.4	56.1 ppmdv		85200	93
AVG: 22.8	59.6 ppmdv		84,933	94
ALLOW: 30				

RATED CAPACITY: 161 TPH and 200 MMBtu/hr

Operating Permit 30-126 limits NOx emission from the "D" Train Dryer to 30.00 lb/hr. NOx emissions measured utilizing Methods 1-4 & 7E.

8/6/01

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AIR QUALITY DIVISION
STACK TEST SUMMARY REPORT
SOLVAY MINERALS GREEN RIVER SODA ASH PLANT
(82) D TRAIN DRYER

REVIEWER: Diesel	REVIEW DATE: 8/6/01	OBSERVED:
TEST FIRM: Airtech Environmental Services Inc.	TEST TYPE: Company Internal Use	
TEST DATE 6/12/01	POLLUTANT TESTED CO	
STACK TEMP 293	PERCENT OF ALLOWABLE	PERCENT OF FULL LOAD 94
ACFM 153,500	LB/HR 89.5	RATE 384 ppm _{dv}
SCFM @ 0% O ₂ : 33,323	SCFM 84,933	%O ₂ : 12.7

LB/HR	RATE	LB/MMBTU	SCFM	% LOAD
RUN1: 95.4	400 ppm _{dv}		87100	98
RUN2: 75.9	334 ppm _{dv}		82500	91
RUN3: 97.2	419 ppm _{dv}		85200	93
AVG: 89.5	384 ppm _{dv}		84,933	94

ALLOW:

RATED CAPACITY: 161 TPH and 200 MMBtu/hr

CO emissions measured utilizing Methods 1-4 & Method 10. CO emission tests performed for Company Internal Use. There is no associated CO emission limit for the "D" Train Dryer (unit 82). The Division estimated CO emissions from the dryer (MD-474) at 300 lb/hr.